BOLD and BRILLIANT

Assembly Instructions

BiFold Doors

BOLD AND BRILLIANT

WINDOWS AND DOORS

Unloading And Installation Guidelines

When you receive an assembly order, it is your responsibility to immediately contact the General Contractor to confirm the RO on the Project you will be assembling. Yawal USA is NOT responsible for any non-compliance/incorrectly prepared RO on the construction site.

Unloading A Container On The Job Site:

-You must be prepared for most containers with Yawal USA products to come directly to the job site

-To unload the container, you need a forklift with a capacity of at least 6,000 lbs, equipped with additional forks that are 8 feet long

-Remember to be especially careful when unloading - aluminum structures and glass are sensitive to strong shocks and impacts

-During unloading, check each rack and structure for any visible damage

-The person who unloads the container is responsible for any damage occurring during unloading

Before the container arrives, Yawal USA will send information on how the container was packed, such as:

-How many racks are included in the container

-What is on a specific rack and where they are in the rack

-What are the dimensions

After unloading, you have 48 hours to send confirmation of unloading, any possible damage during transport to the job site and confirm completeness or the shipment. **Yawal USA is not responsible for any damage caused DURING UNLOADING.**

Remember that the Person Driving the Forklift Should Have Appropriate Qualifications and Experience

Note On Building Developments

- Improper design and/or non-conforming application of building envelope materials has been demonstrated to cause premature building envelope failure.
- Even with premium materials, shortcuts and errors in the final installation can impact budgets, time frames, building life span, and increase legal liabilities.
- As one of the elements that bisect the interior/exterior plane, window and door integrations are a critical element of the building envelope as a whole.
- Poor installations can carry significant liability, due to building envelope failure.

Important Notice & Information

The building development must be correctly prepared with weather resistant barriers that meet local and state codes. All frame and sill surfaces must be correctly prepared for air, water, and structural integrity *by the Builder or Contractor before attempting installation*.

In order to meet warranty requirements, all systems are required to be installed by a Certified Installer.

- Read these instructions in their entirety prior to installing windows. If you have questions, contact your Project Manager or Yawal USA at 201-753-2195 for clarification.
- Yawal USA is not responsible for site measurements nor the structural and architectural requirements for the installation of the windows.
- Building design, construction methods, building materials and site conditions unique to your project may require methods different from these instructions.
- Choosing the appropriate method is the responsibility of you, your Architect, or your construction professional.
- Confirm with sealant/foam/barrier manufacturers that all materials used are compatible with one another.
- Remove shipping blocks and related staples prior to installation.
- All drawings are shown not to scale.
- To ensure accuracy, make sure you have the latest approved shop drawings and assembly and installation guides.
- Any local, regional or national building code requirements supercede these instructions.
- Safety is top priority for Yawal USA; please use proper work procedures and protective equipment.

***Site Preparation Advisory*: This manual is intended for construction professionals with proven competency installing curtain walls, sliders, doors and windows for large openings. Window installations are complex and should not be attempted based on simple written document.**

Site Preparation Advisory

These instructions request that the building envelope include proper rough opening support with weather resistant barriers to meet or supersede all local building codes.

1. Laser Level
2. Hammer
3. Pry Bars
4. Ladders
5. Scafold
6. Utility Knife
7. Screw Gun with a Phillips Driver bit
8. Foam Gun
9. Tape Measure
10. Caulk Gun
11. Allen Wrench
12. Torx Key

Site Preparation Advisory

Suggested Materials Required:

1. Hig-impact composite (not wood) shims/spacers
2. 2” #10 screws (stainless steel recommended)
3. Expansion foam - closed cell (low-expansion only)
4. Window & door flashing tape (6” recommended)
5. Window & door sealant **(Sika**sil sg-20 or dc 895/dc 993/dc995 or Illbruck ct113

Weather Barrier Material Selection (*though this guide only includes one type of barrier material, various options are available to meet individual site requirements*):

1. Vapor permeable building wraps
2. EPDM
3. Fluid-applied materials
4. Self-adhered membranes
5. Medium density spray-polyurethane foam
6. Factory-bonded membranes

Verify The Rough Opening

1. Measure the rough opening and the window/door to determine that the size is correct. recommended rough opening is 1” (25mm) larger than the window/door width and height.
2. Ensure that the rough opening is plumb, level and square, and the walls in the opening are not twisted.

   A) Ensure proper header is in place before installation.

   B) Make necessary corrections.
3. The preparation of the rough opening for large openings such as those required by, but not limited to, liftslide, bifold or slide doors have unique requirements.
4. Structural headers that allow for deflection no greater than 2/8” along the unsupported length once the header is fully loaded are required. Special care needs to be taken when installing any unit including transoms above such large opening units.
5. This manual is intended for construction professionals with proven competency installing doors for large openings. it is also recommended that Certified Installers are being used when installing this product.
6. This installation describes and recommends proper installation methods to ensure air, water and structural integrity will be maintained for maximum performance. During installation the fit, finish and function will be critical to get it right the first time by making sure to perfectly level the sill and maintain a square opening.
7. Recommended by Yawal USA is using sill pan for lift and slide door and sliders without extra drainage profile and for door.

Pre-Installation Check List Big Openings - Lift&Slide, Bifold, Sliding Door

You Must Work From The Provided Shop Drawings To Prepare The Opening

- The rough opening is the correct size, plumb and square. no sagging header. Take into account if the roof has been loaded or not. The maximum deflection over entire length of opening should not exceed 2/8” max. after the roof is loaded.
- Verify that the concrete or sub-floor where the system is to be installed is level. The frame system may be shimmed to compensate for an uneven floor but will adjust the relationship of the systems sill to the finished floor and may increase the overall height of the system in the opening. Any serious deflection in the concrete or sub-floor where the system is to be installed must be corrected prior to installation.
- It is important that your Framer knows the finished floor thickness to determine the header height.
- Multi-slide sills come in a variety of riser heights and should be noted for the one specified for your application.
- The level of the finished floor needs to be determined ahead of time and noted somewhere near the opening.
- Exterior surface must have a negative slope from the sill assembly to allow water run-off from weep system (recommend 3 degrees)
- Seal and finish all the panels and wood surfaces (specifically the edges) prior to installation, as it will be difficult to finish after the panels are installed. It also protects the wood from swelling and contracting, which can damage the wood itself and cause problems with operation.
- Once the doors are installed, it is difficult to access the overlapping stiles on the doors for any adjustment or finishing.
- Either wood framing or a continuous plane of plywood should be in place to anchor the head and/or side jamb.

Pocketing System

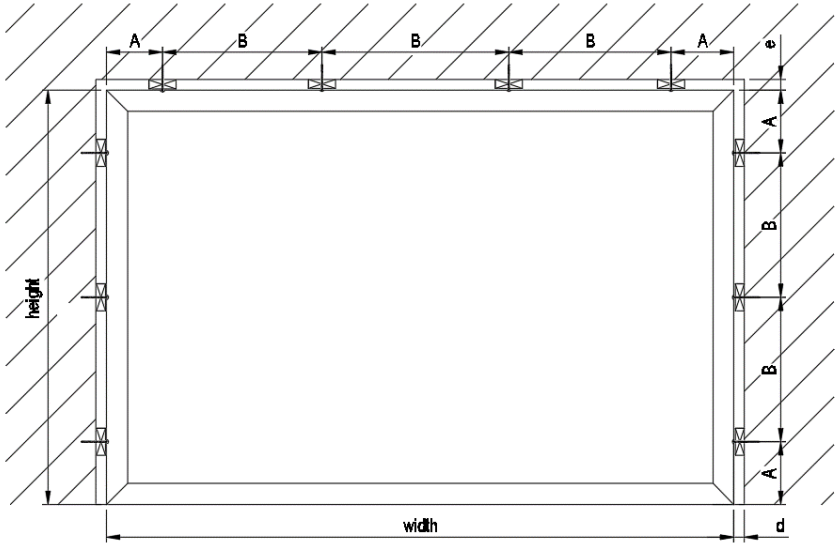
- Ensure that the finished pocket width and depth is correct.
- These dimensions are referenced in your shop drawings.
- The outside wall of the pocket needs to be framed in and sheathed according to the building codes in your area.
- Wait to build the interior pocket walls until after the installation of the doors. This will allow easier access to the exterior pocket walls for installation of the head and bottom track; easier installation of the panels once the head and bottom track.

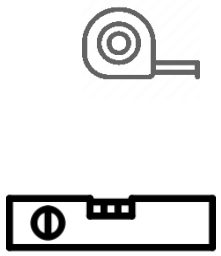
Sill Pans

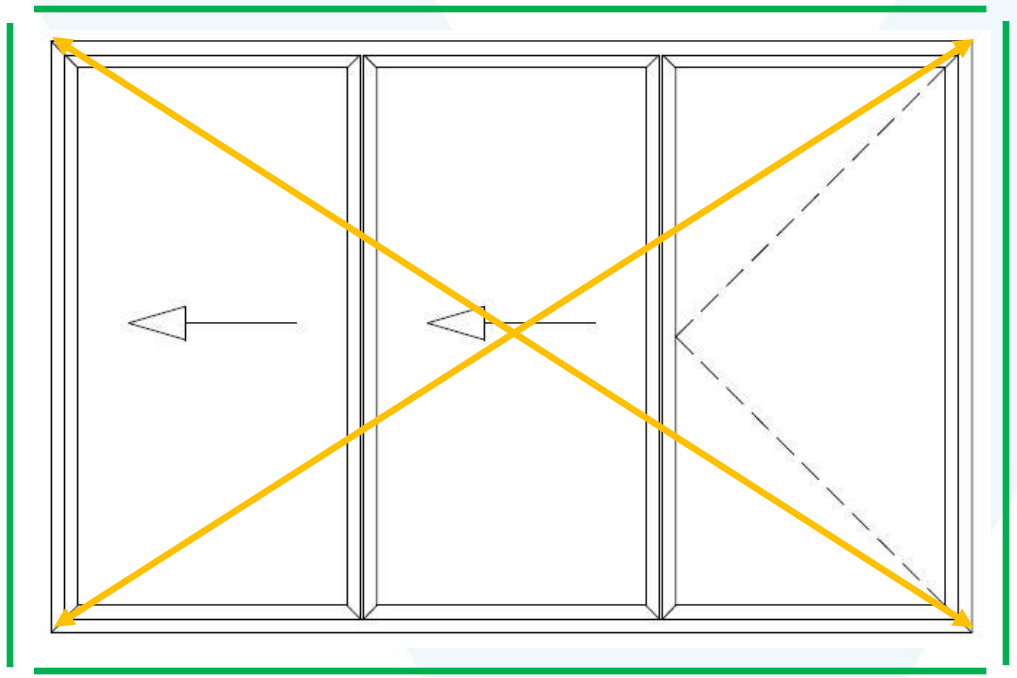
- Sill pans can be rigid or flexible and are a highly recommended option to be used.
- Pan flashing is used at the base of openings and designed to collect and drain water directly to the exterior.
- Sill pans should be slightly sloped outward
- Before fastening the rigid sill pan, apply three line seal onto the construction plate - one outboard, inboard and at the exterior down turned leg. Continue the sealant approx. 6” up both jambs at each end.
- Set the pan into the sealant and check the level. Secure the end dams with fasteners as required.
- Seal the end dams with sealant; tool the end dams to the framing
- All installations must have a weather resistant barrier. water resistant barrier should be applied and glued per Manufacturer's instructions.
- If water resistant barrier is applied then cut away with a complete box cut of the opening.
- No water resistant barrier should be brought into the rough opening.
- Cut back and expose the sheathing at the side jambs by removing approximately 1“of water resistant barier. This will create direct-contact seal to the sheathing for flashing.
- Ensure that the flashing and the sill pans are properly overlapped and remain water resistant.

IMPORTANT! Installation Sealants Must Be Chemically Compatible With The Rubberized Asphalt Membrane Applied To The Sill Assembly. Synthetic Copolymer Sealants Are Not Recommended. Incompatible Sealants May Cause Irreparable Harm To The Sill System.

STEP 1 Prepare Wall To Install BiFold Frame And Check The Diagonals







Attention: There should be shims under each anchor.

mark	A	B
max dim.	[6”]	Max [31.5”]

min. gap width	d= 10mm [1/2”]
min. gap width	e= 25.4mm [1”]

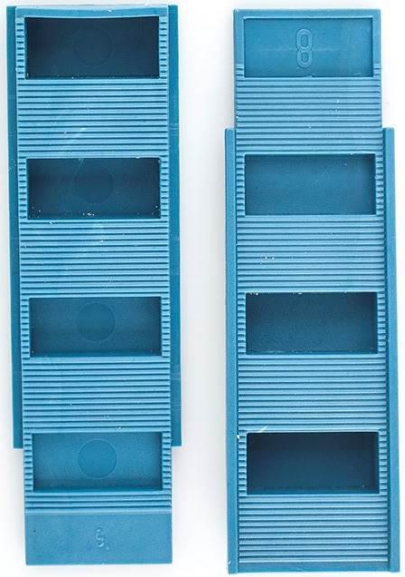
Rough opening should be at least 1" bigger than frame size.

Attention: Measure the diagonals to make certain unit is square and plumb.

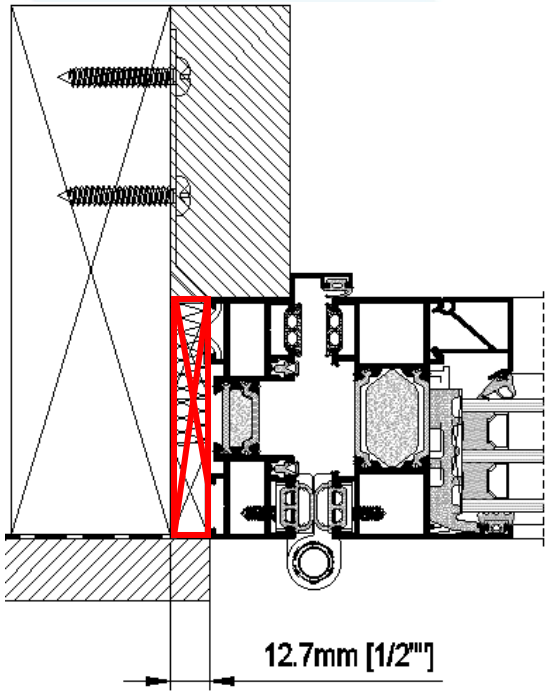
STEP 1 Prepare Wall To Install BiFold Frame And Check The Diagonals

Shims are used to block and set vertical/horizontal and levels of windows.
See below for an example of recommended shims:

15⁄64’’ [6 mm] thick



5⁄16’’ [8 mm] thick

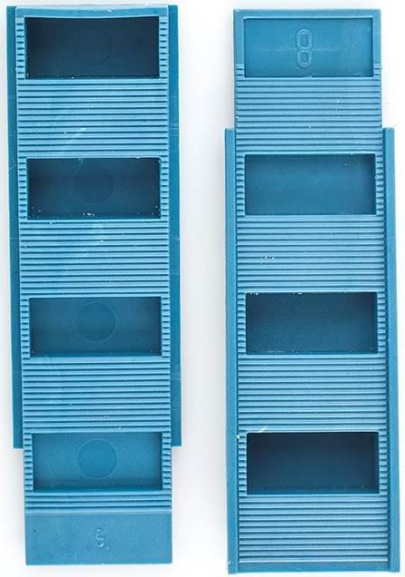


Shims can be stacked if necessary

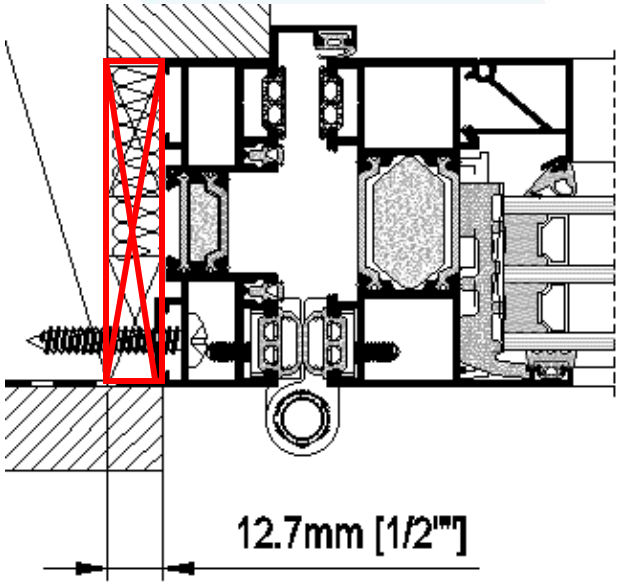
STEP 1 Prepare Wall To Install BiFold Frame And Check The Diagonals

Shims are used to block and set vertical/horizontal and levels of windows.
Recommended shims, example below:

15/64'' [6 mm] thick

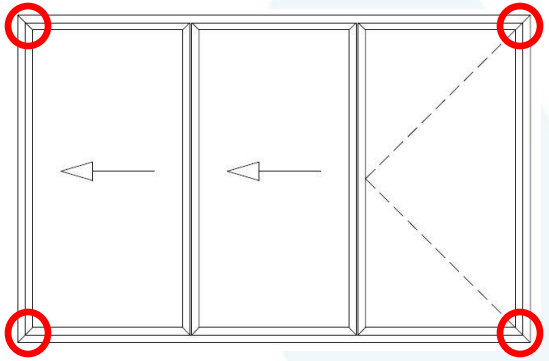


5/16'' [8 mm] thick

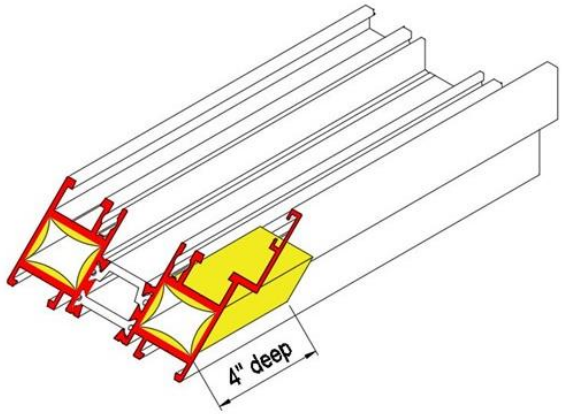


Shims can be stacked if necessary.

STEP 2 Corner Joints of Profiles



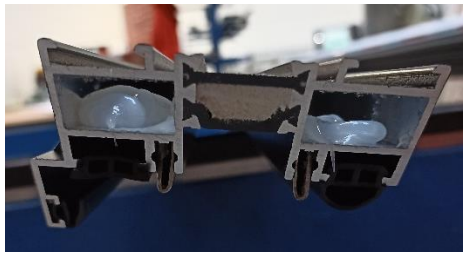
In order to assemble the corners, apply the glue on the surface of each corner connector; the surface should be sealed by using silicone along cutting line.



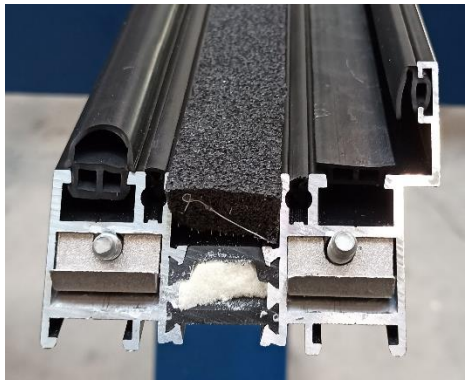
Red marks – silicone sealant
Yellow marks – glue

Note: Glue must be inserted 4” deep inside the profile.

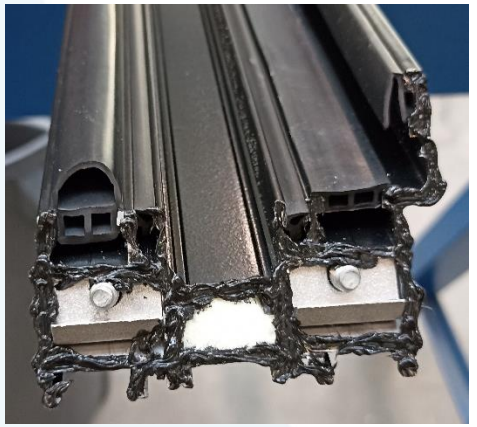
Recommended glue:
WURTH K+D or Cosmopur 818



1. Glue a corner joint on contact surface.



2. Put corner joints inside the frame profile.

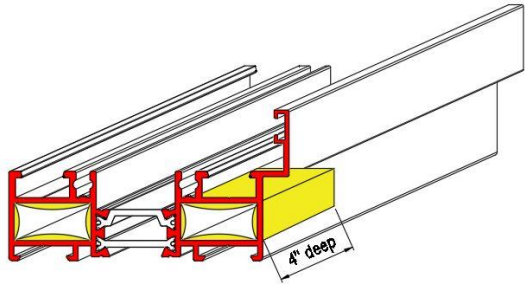


3. Apply silicone on contact surface.

4. Tighten the corner joints alternately with the metric allen key 4mm.

Attention! Frame needs 24 hours for glue to dry. Within 5 miles from salt water or under harsh environmental conditions, all cut surfaces have to be covered by touch of paint.

STEP 3 Frame Extension – Length

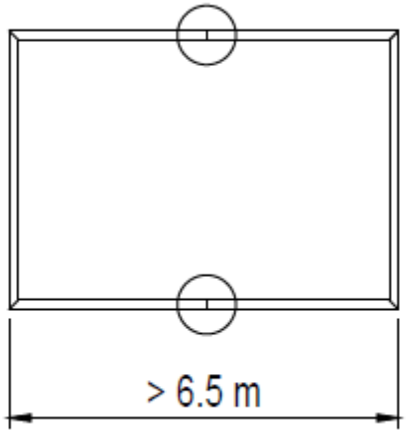


Red marks – silicone sealant
Yellow marks – glue

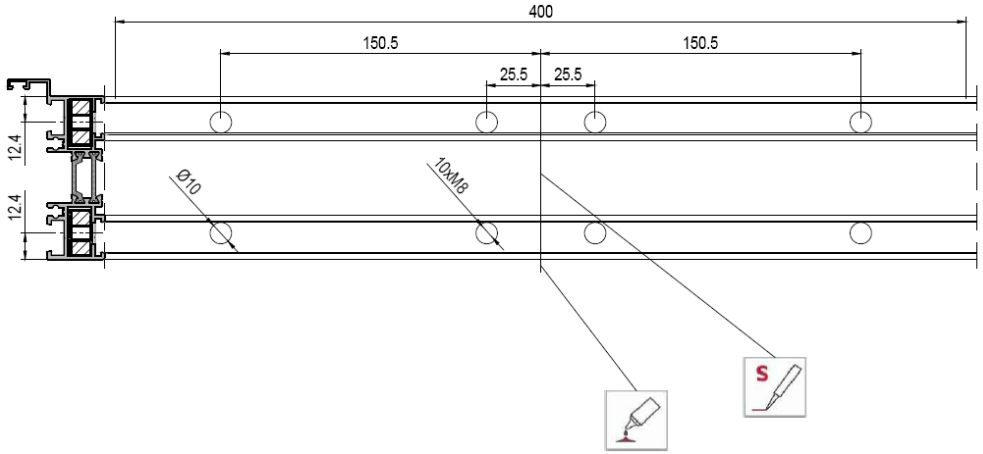
Note: Glue must be inserted 4" deep inside the profile.

Recommended glue :
WURTH K+D or Cosmopur 818

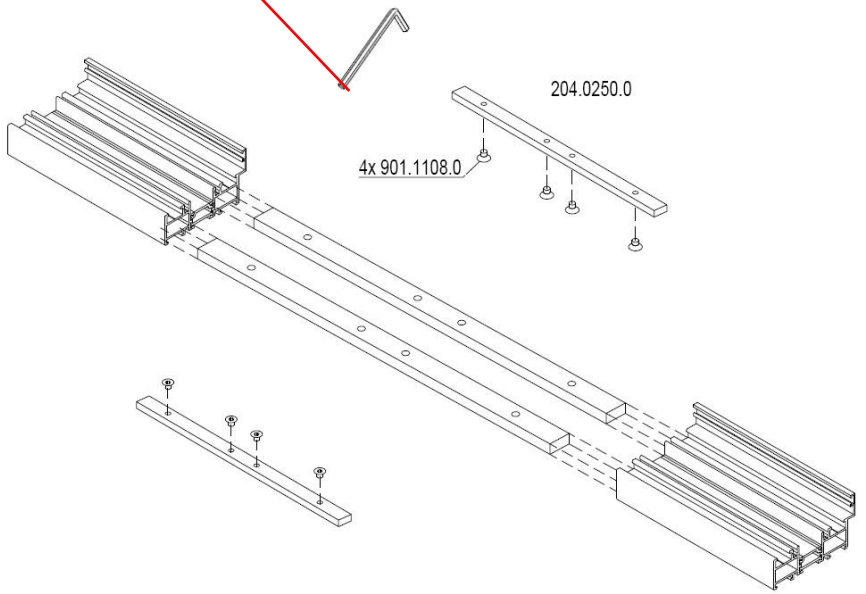
If folding doors are wider than 6,5m [21ft 4in] it's necessary to extend the frame. Follow instructions shown below:



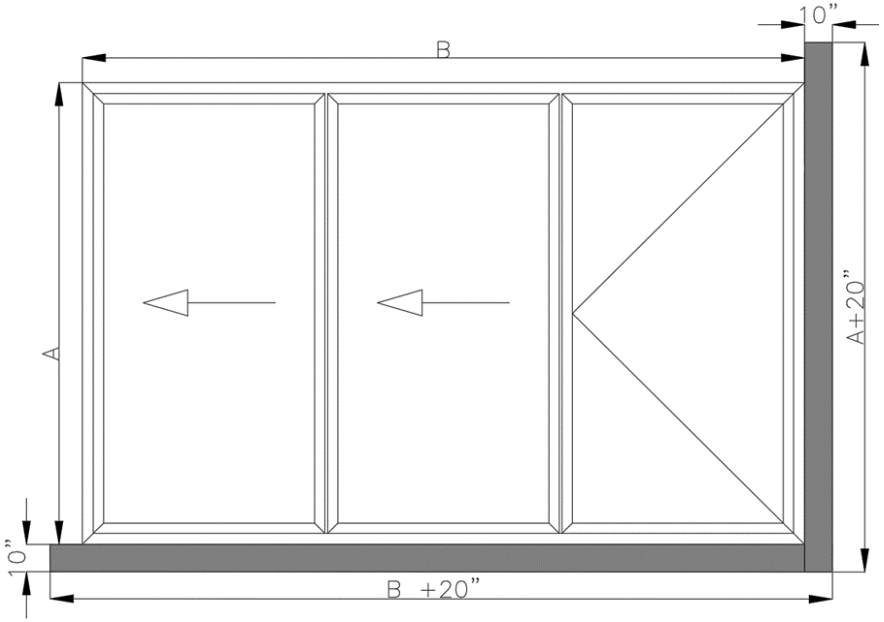
1. Apply the glue inside the profiles and sealing compound along surface on both profiles.
2. Install connectors inside the frame.
3. Tighten using screws.



To tighten use 5mm metric allen key



STEP 4 Install EPDM Foil

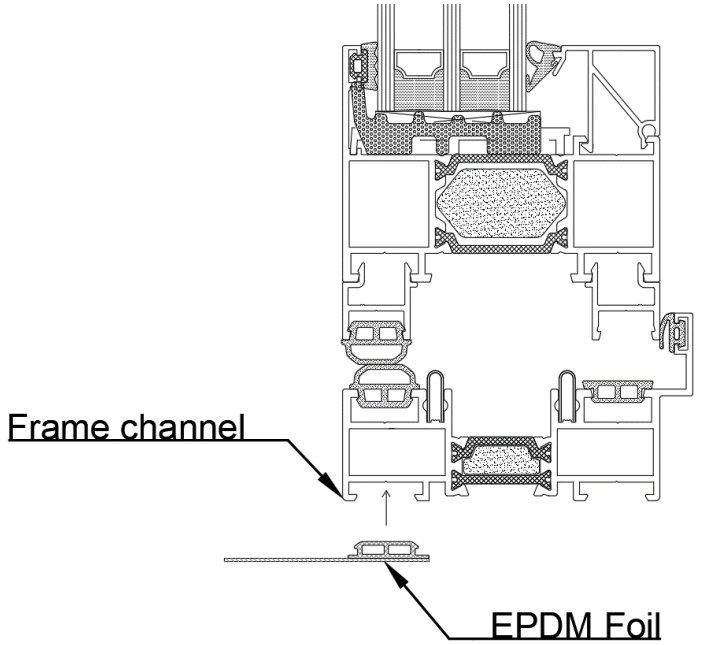


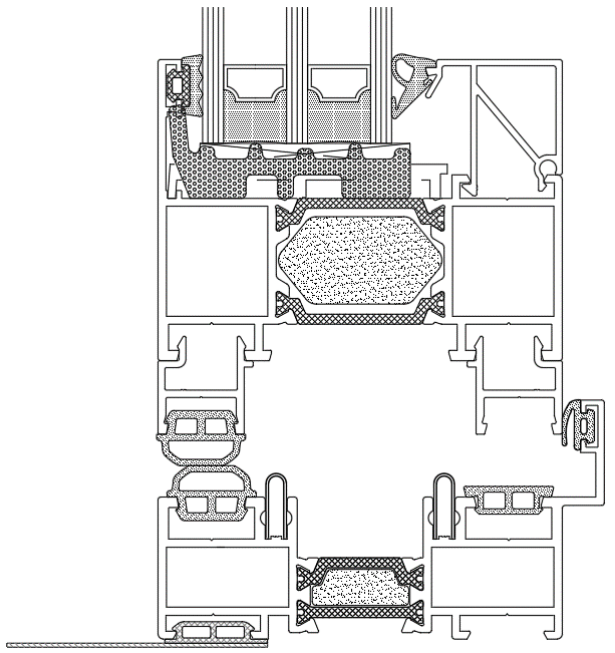
A – Window Height

B – Window Width

Cut the EPDM foil for the required length.

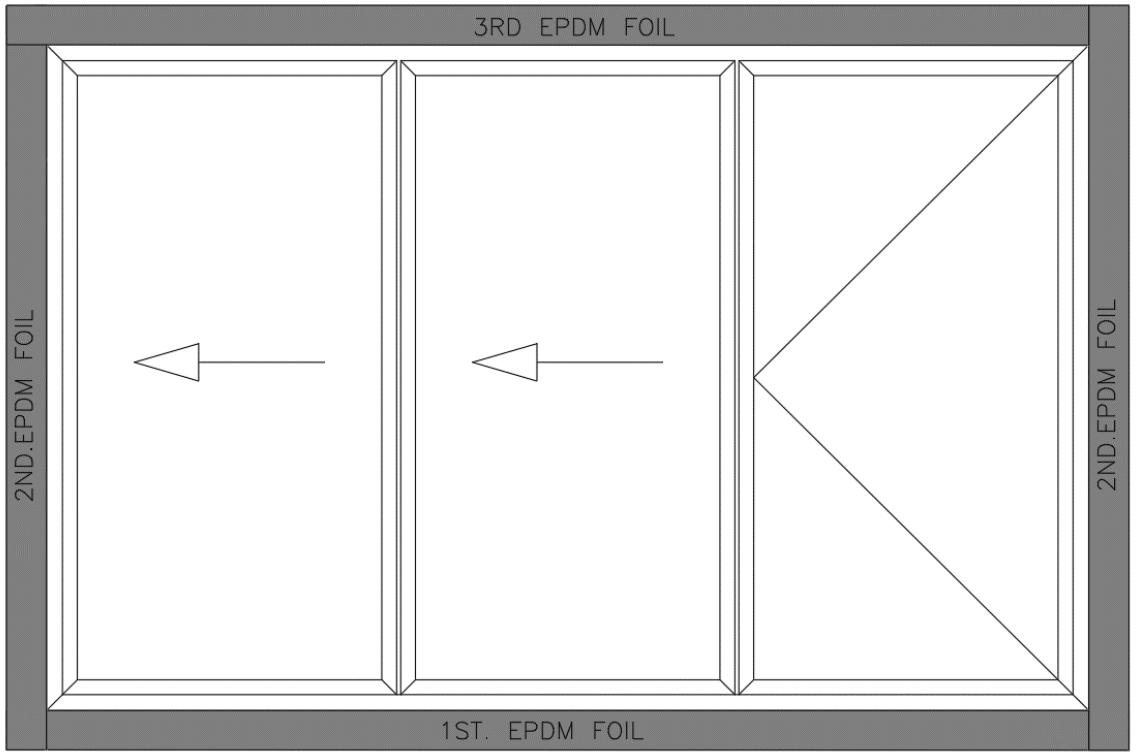
Install the EPDM foil in the frame channel





IMPORTANT! The EPDM foil must be 20”longer than window frame dimensions.

STEP 5 Seal The EPDM Foil To The Wall



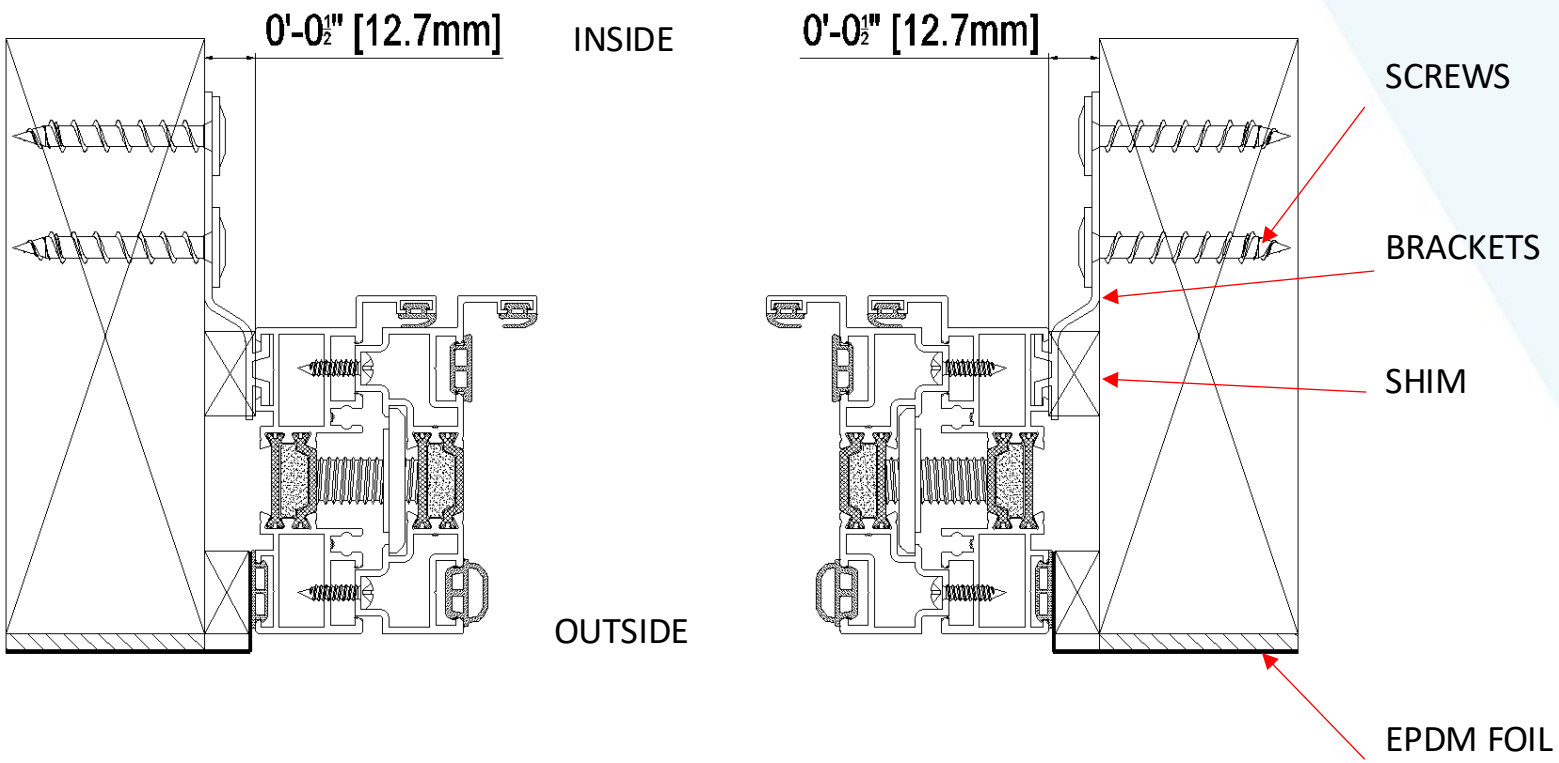
Installation sequence:

1. 1st - Bottom
2. 2nd - Sides overlap Bottom
3. 3rd - Top Overlaps Sides

Recommended glue: Illbruck CT113

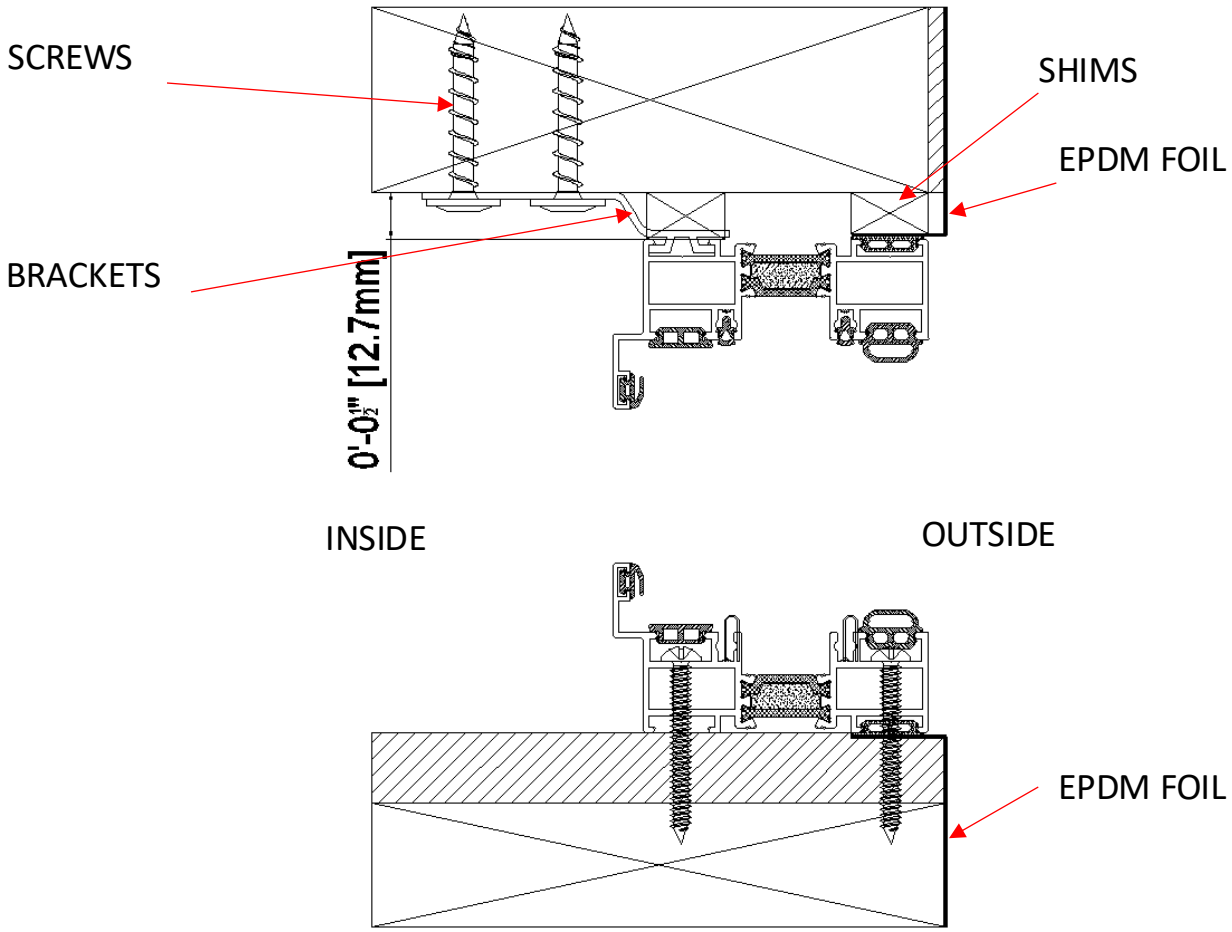
IMPORTANT! The EPDM foil must be sealed in the way described above! In the case of improper installation, there is a risk of water penetration.

STEP 6 Install Frame To Wall – Vertical Cross-Section



1. Insert the frame into the opening.
2. Pre-set the frame and block it with shims. Adjust with wedges and make sure that frame is level in all directions.
3. By using spirit level, check the vertical and horizontal correctness.
4. Check whether the diagonals of the frame are the same – as they should be.
5. Set brackets and screw to the wall.
6. Check the frame dimensions. If frame has been overtightened, loosen the screw, add spacer and tighten screw.

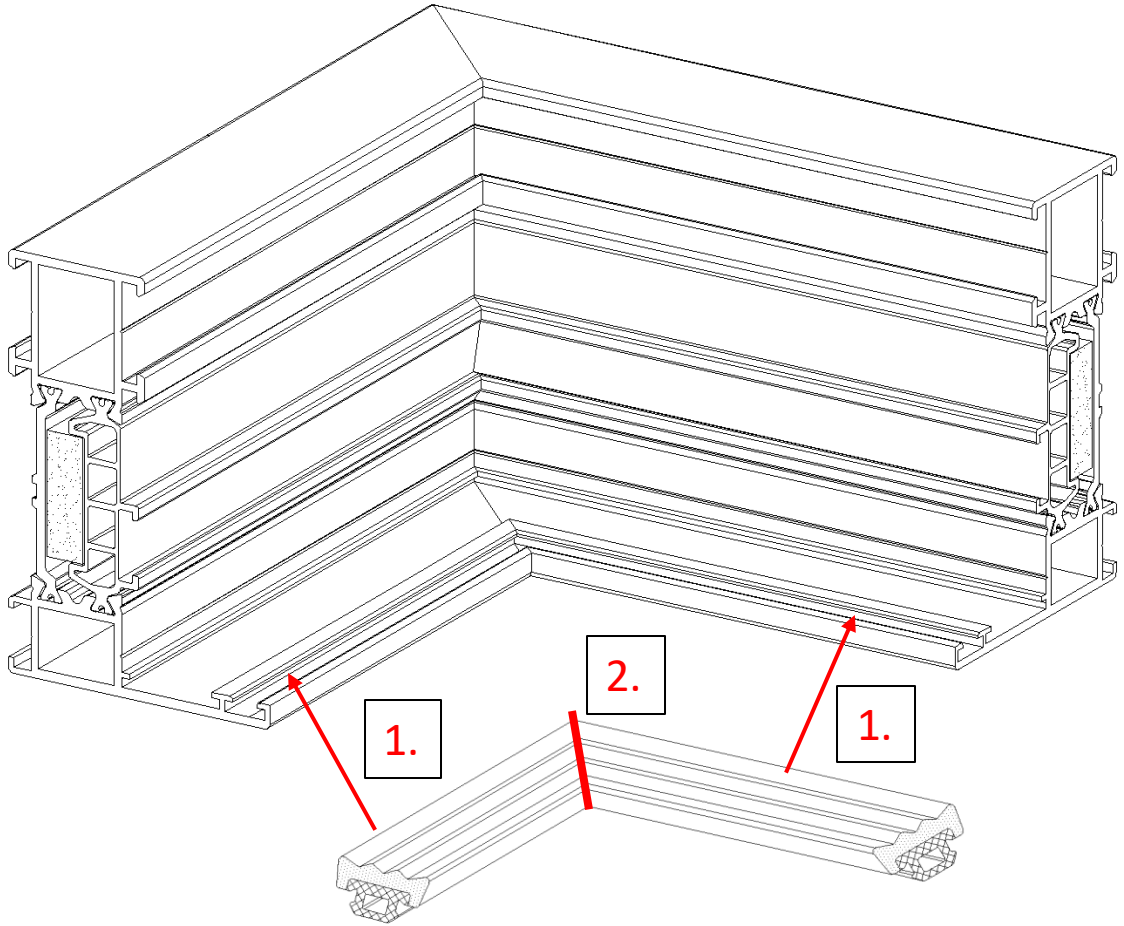
STEP 6 Install Frame To Wall – Horizontal Cross-Section



1. Insert the frame into the opening.
2. Pre-set the frame and block it with shims. Adjust with wedges and make sure that frame is level in all directions.
3. By using spirit level, check the vertical and horizontal correctness.
4. Check whether the diagonals of the frame are the same – as they should be.
5. Set brackets and screw to the wall.
6. Check the frame dimensions. If frame has been overtightened, loosen the screw, add spacer and tighten screw.

Note: Pay special attention to whether the ideal level of the lower frame is maintained.

STEP 7 Gluing Under Glass Gasket



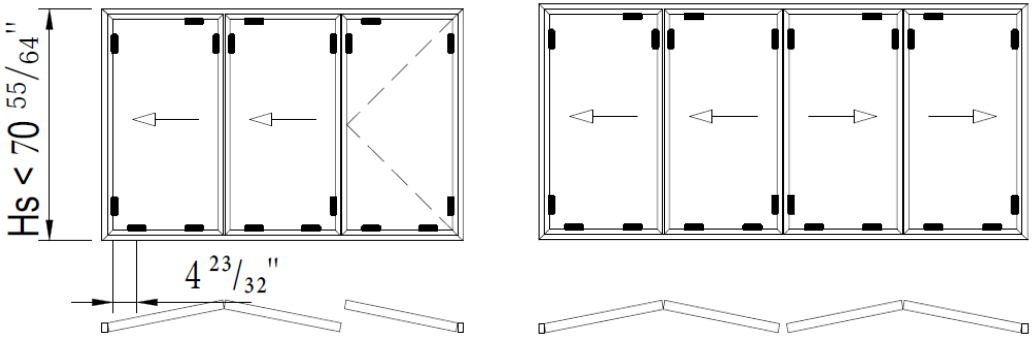
After corner joint of profile, take the following steps:

1. Put under-glass gasket to nest.

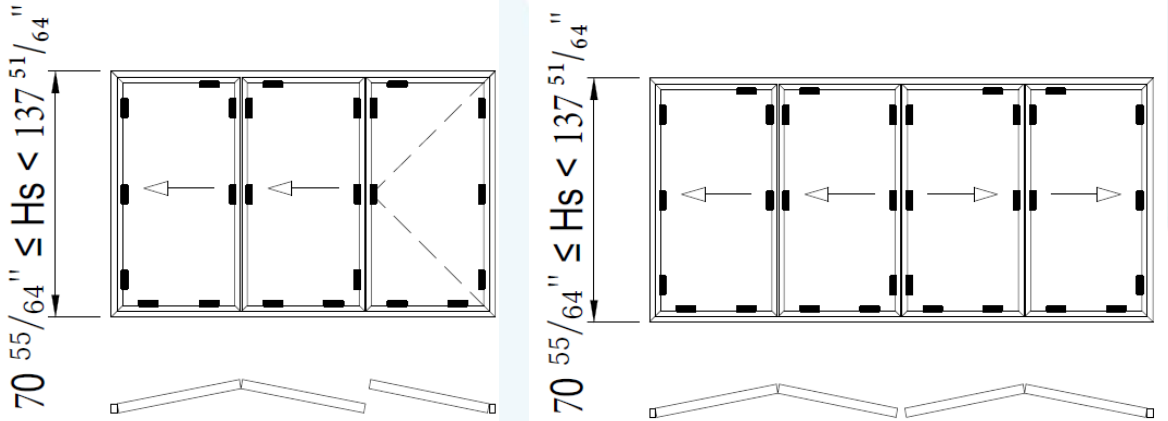
2. Glue surface of the under-glass gasket, using Teroson gasket glue or black UV resistant caulking, eg DC995.

STEP 8 Install Glass And Place Shims In Correct Location

Put glass into frame, next use the shims.



Sash height below 70 55/64”

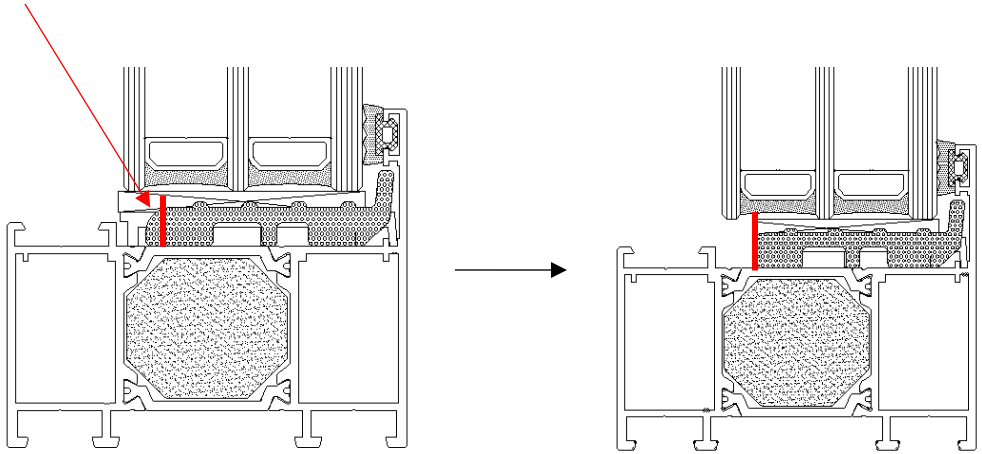


Sash height between 70 55/64” and 137 51/64”

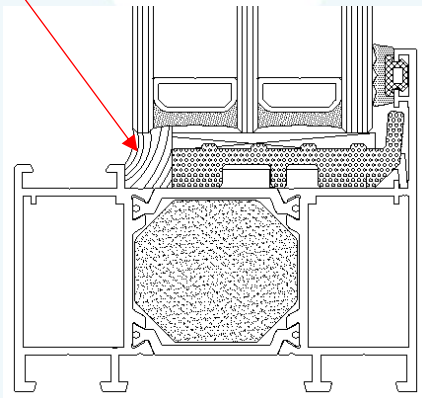
IMPORTANT! Shims shouldn’t be placed on drainage hole

STEP 9 Sealing Glass To The Frame

1. Cut the shims and foams



2. Place silicone (*see next page*)



IMPORTANT! Seal the glass from the inside (where the glazing beads are)

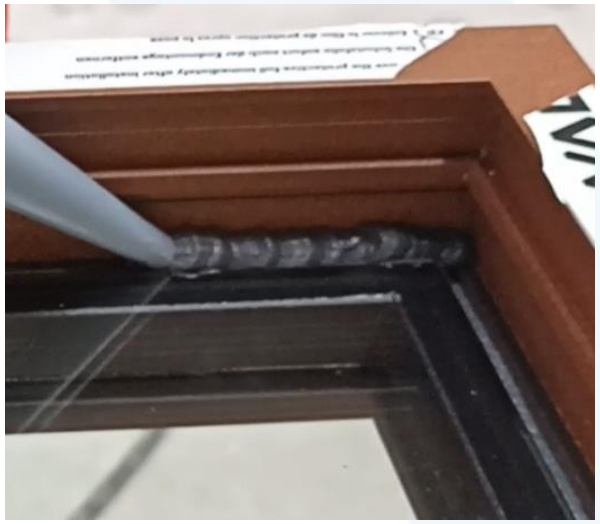
STEP 9 Sealing Glass To The Frame

1. Clean the surface of the glass and aluminum profile with isopropyl alcohol cleaner.

2. Apply primer on the cleaned surface.

Attention! After sealing, window must rest for at least 72 hours in the horizontal position.

3. Put foam seal between glass and aluminum profile on the entire profile circumference.



4. Fill the remainder of glass circumference with structural glue.

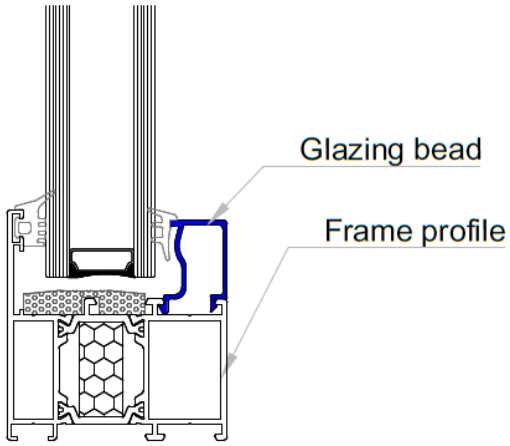
Recommended glue:
DowSill 776 instafix or
SikaSil WT-480

5. Remove the protruding part of the glue.

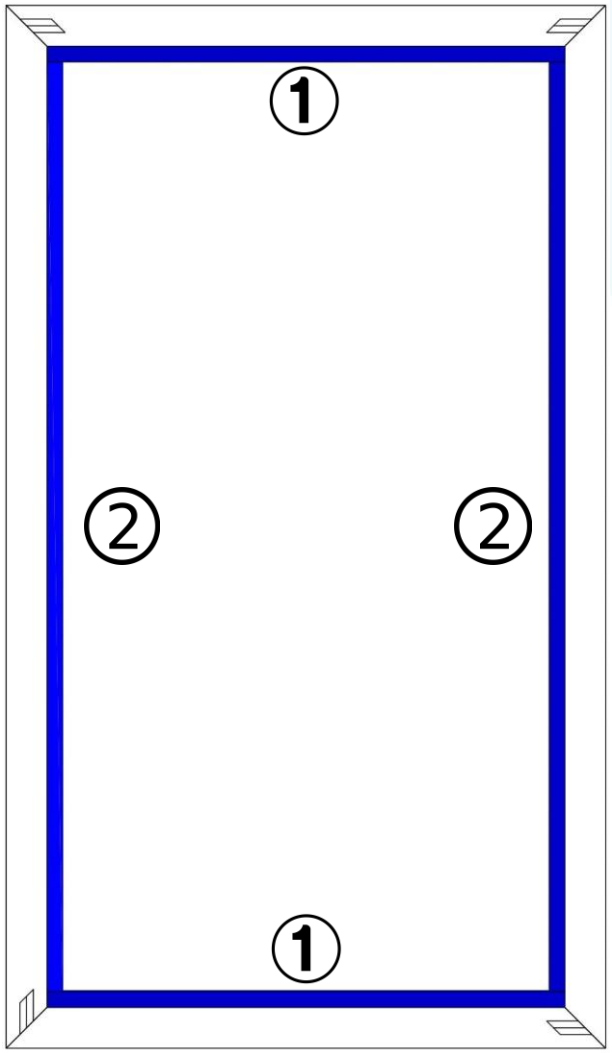
Attention! Foam seals and glue must be used on the entire circumference.

STEP 10 Install Glazing Beads

Install the glazing beads.



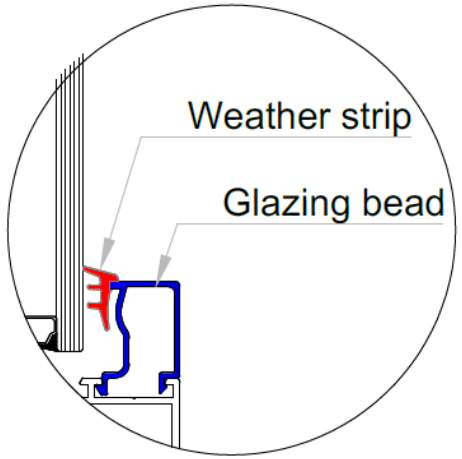
Attention: After glazing, all stickers must be taken off to avoid discoloration.



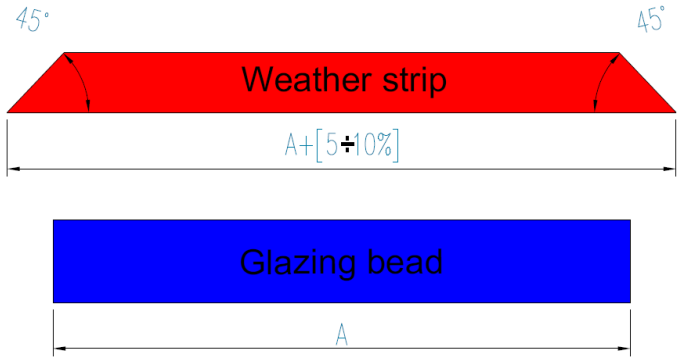
① **First install horizontal glass beads**

② **Second install vertical glass beads**

STEP 11 Install Weather Strips



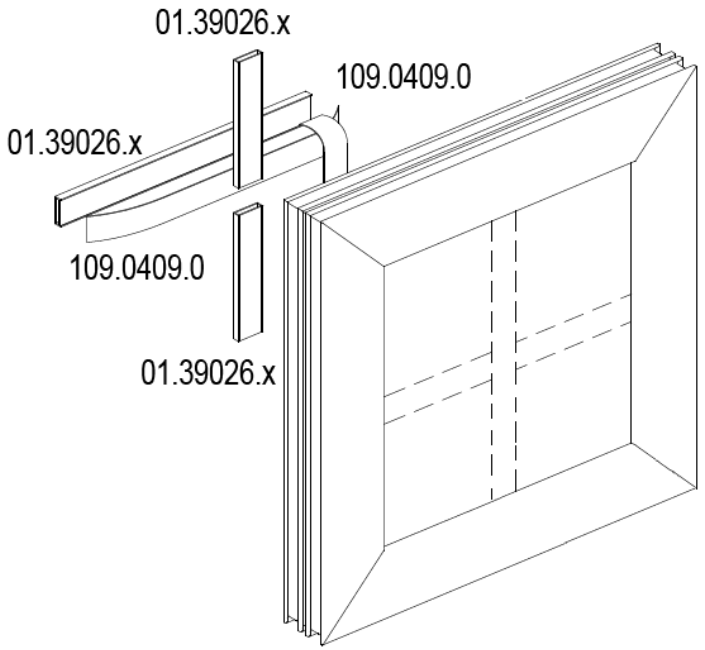
Weather strip must be cut 5-10% longer than the glass beads and the edges of the weather strip must be cut under 45 angle.



Gaskets should be installed to press the glass but not to push 2-3" all the way through for 72h to bring air to dry the glue (if the glass was sealed).

After 72 hours, put the gaskets all the way in.

STEP 12 Applying SDL Bars

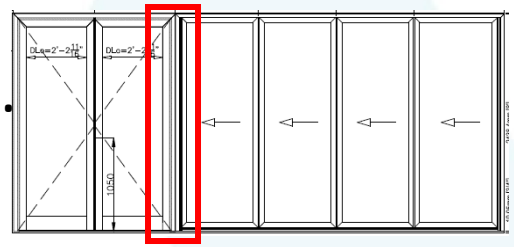


Attention! Applying SDL BARS must be done only after installing panel in the wall opening, glazing and proper glass shimming.

During designing the panels with SDL bars please have in mind location of the panels on elevation of the building to line up and match the SDLs in different partitions.

- Clean surfaces before applying using isopropyl alcohol. Cleaning should always be carried out in one direction. Allow to evaporate for a minimum of 30 seconds.
- Apply a thin layer of cleaner on powder coated surface of SDL bars. Allow to evaporate for a minimum of 5 minutes. Do not touch the prepared surface with your fingers.
- Apply tape to previously prepared profile surface.
- Put additional layer of cleaner on the glass pane (at ambient temperature) and wipe dry without any blurs. Do not touch the prepared surface with your fingers.
- Apply profile with the tape to glass pane and press with a roller (within 5 minutes after application of the cleaner).
- Apply SDL bars (expansion gaps should be left between SDL bars).
- In regards to differences in thermal expansion between aluminum and glass, maximum length of SDL bars should not exceed 2500mm [100”]
- Minimum temperature for applying SDL bars is 15°C [59 °F]
- When using glass with functional coating, i.e. self-cleaning or applying SDL bars, please consult your Project Manager or Yawal USA.

STEP 13 Straight Frames Connection.

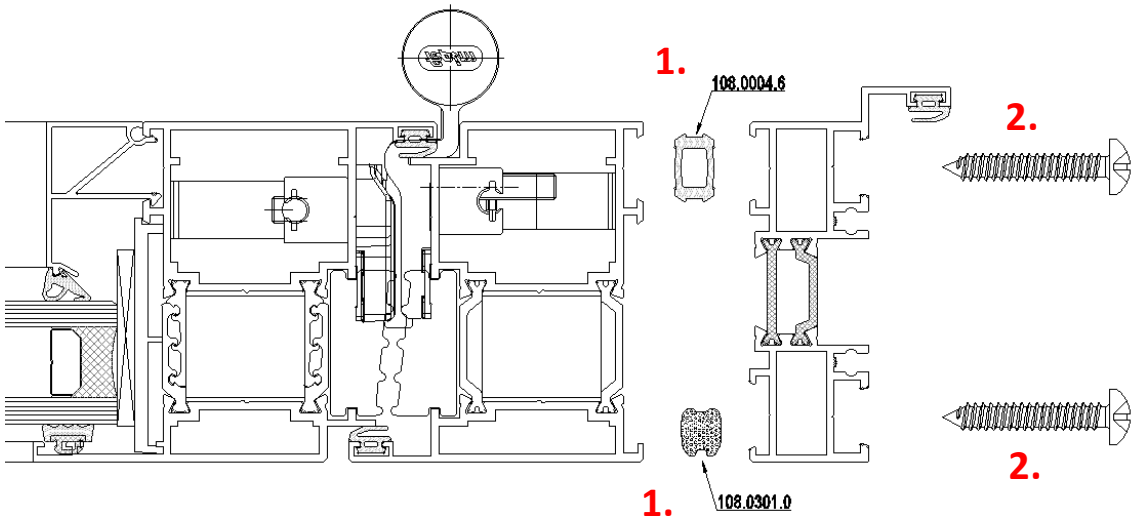


Distance between each screw should be x = max. 300mm (12”)

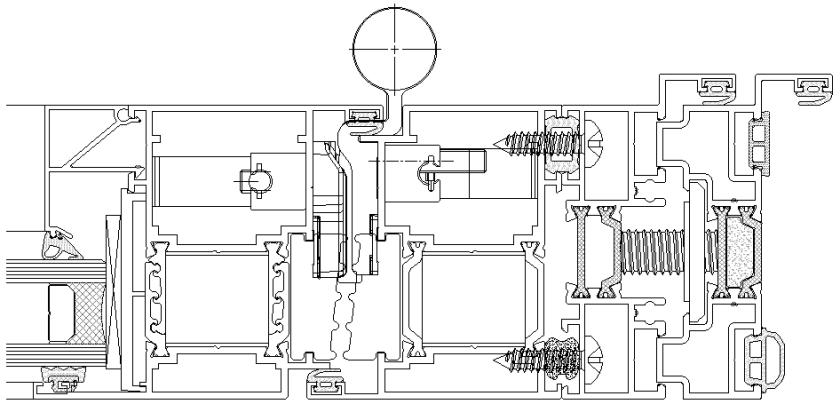
Every screw must be stainless steel or galvanized.

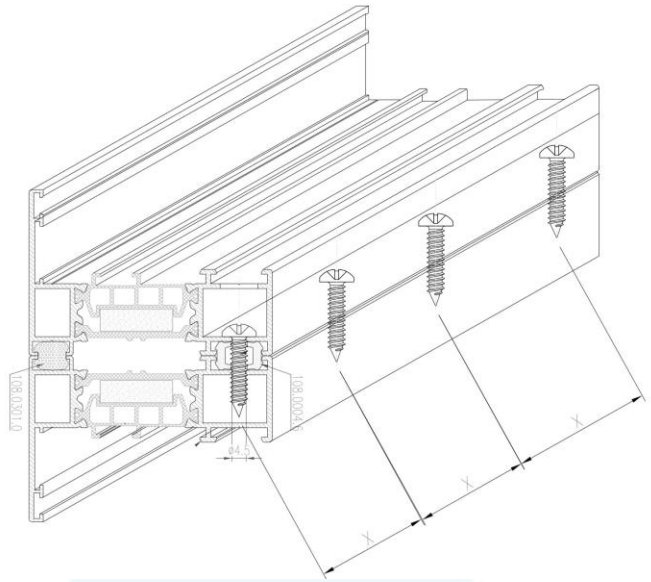
Every hole must be sealed using silicone sealant.

1. Put the seals between both frame profiles.
2. Screw the frames together. Holes are prepared by the fabricator.
3. Screw the compensation profile to the frame.



3.

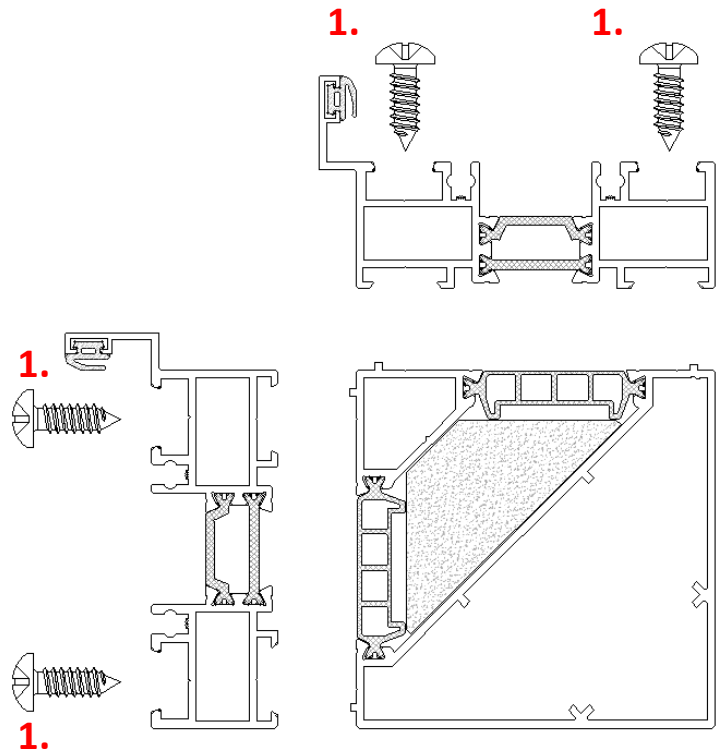


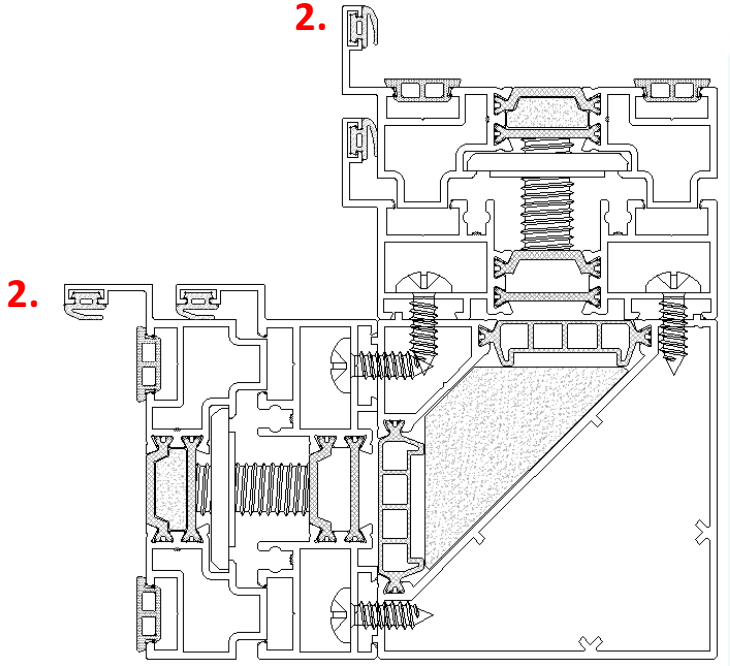


IMPORTANT! Avoid door hinge locations.

STEP 14 Frame Connection At 90-Degree Angle

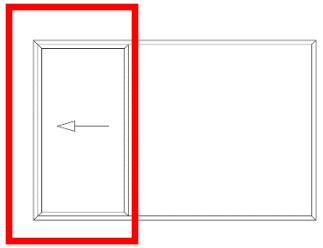
1. Screw the frames together. Holes are prepared by the fabricator.
2. Screw the compensation profile to the frame.



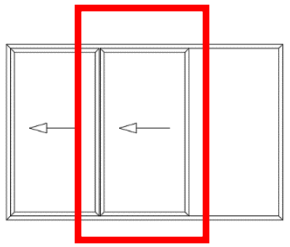


Attention! Every hole must be sealed using silicone sealant.

STEP 15 Assembling The Panels

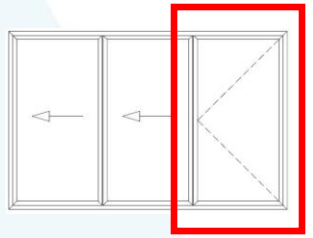


1. Screw on the hinges to the frame and first panel. Use the cross screwdriver.

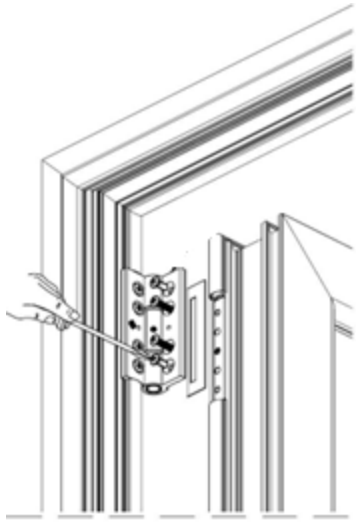


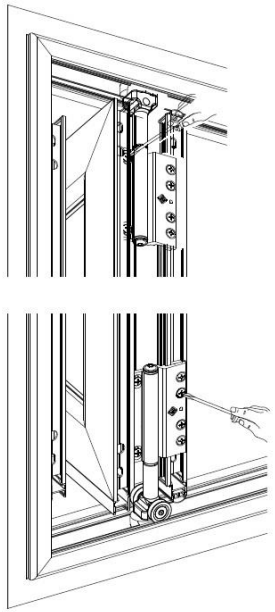
2. Screw on the hinges to panels.

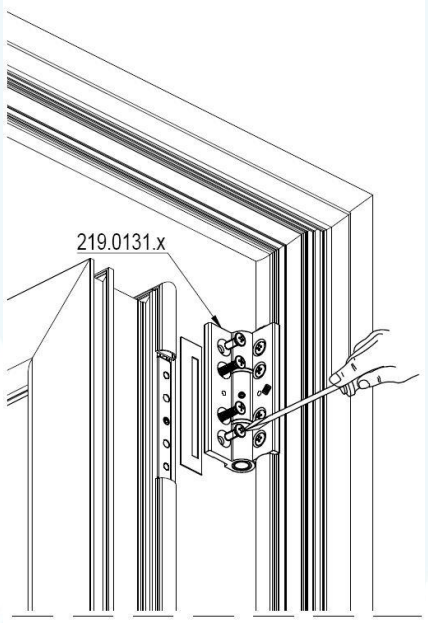
3. Check whether the fold panels opens. If the fold panels don’t open, adjust the upper and lower roller.



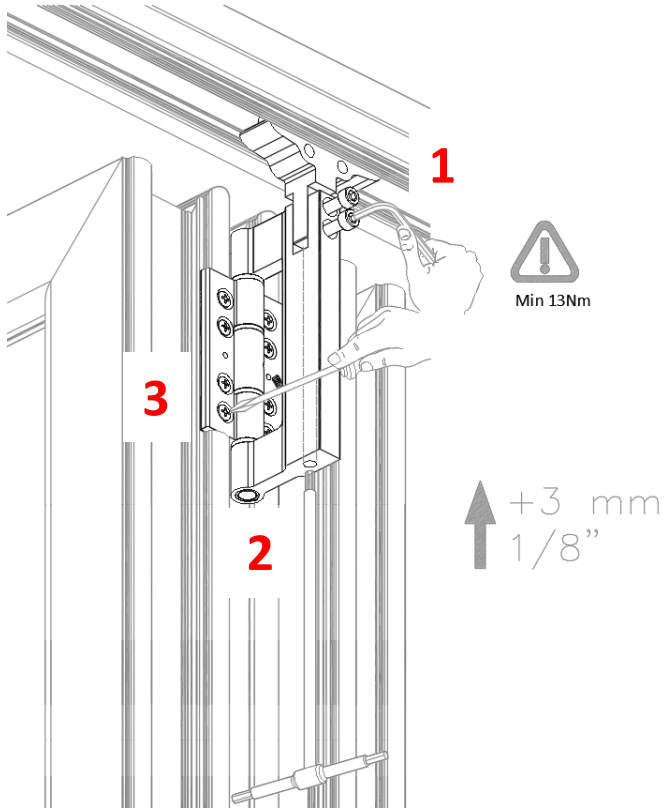
4. Screw on the hinges to the frame and door panel. Use the cross screwdriver.

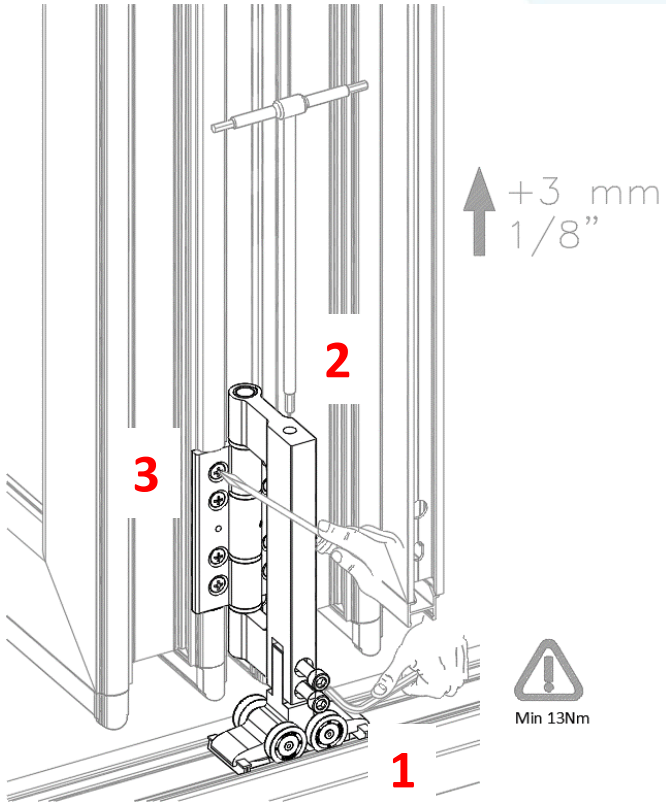






STEP 16 Regulation Of Upper And Lower Roller



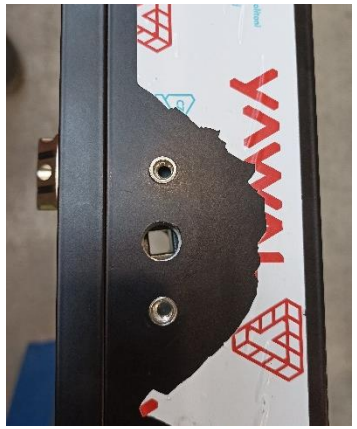


Loosen the screws **1**

Regulation with allen wrench **2**
Tighten screws **1** with a force of min. 13 Nm

Check that the screws **3** are tightened.

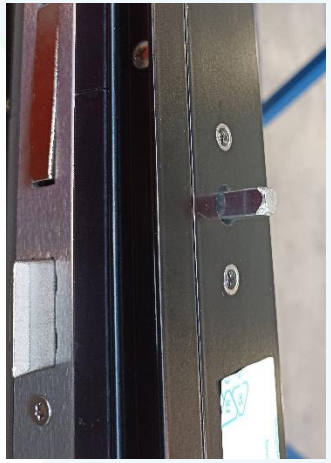
STEP 17 Handle Installation



1. Add handle to the frame.

2. Screw the bolts on both sides of the handle.

3. Twist cover plate to the correct position.



4. Add square bar to the other side of the frame.

STEP 17 Handle Installation

5. Add second handle to the frame.

7. Move cover plate to correct position.

6. Screw bolts from both sides of the handle.

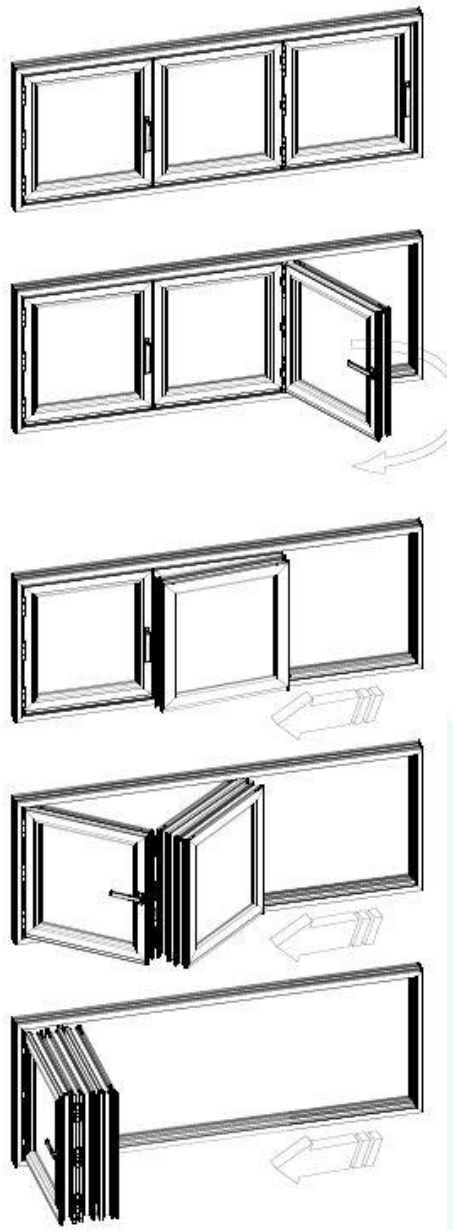
STEP 18 How To Open The Folding Panels

1. Open swing panel.

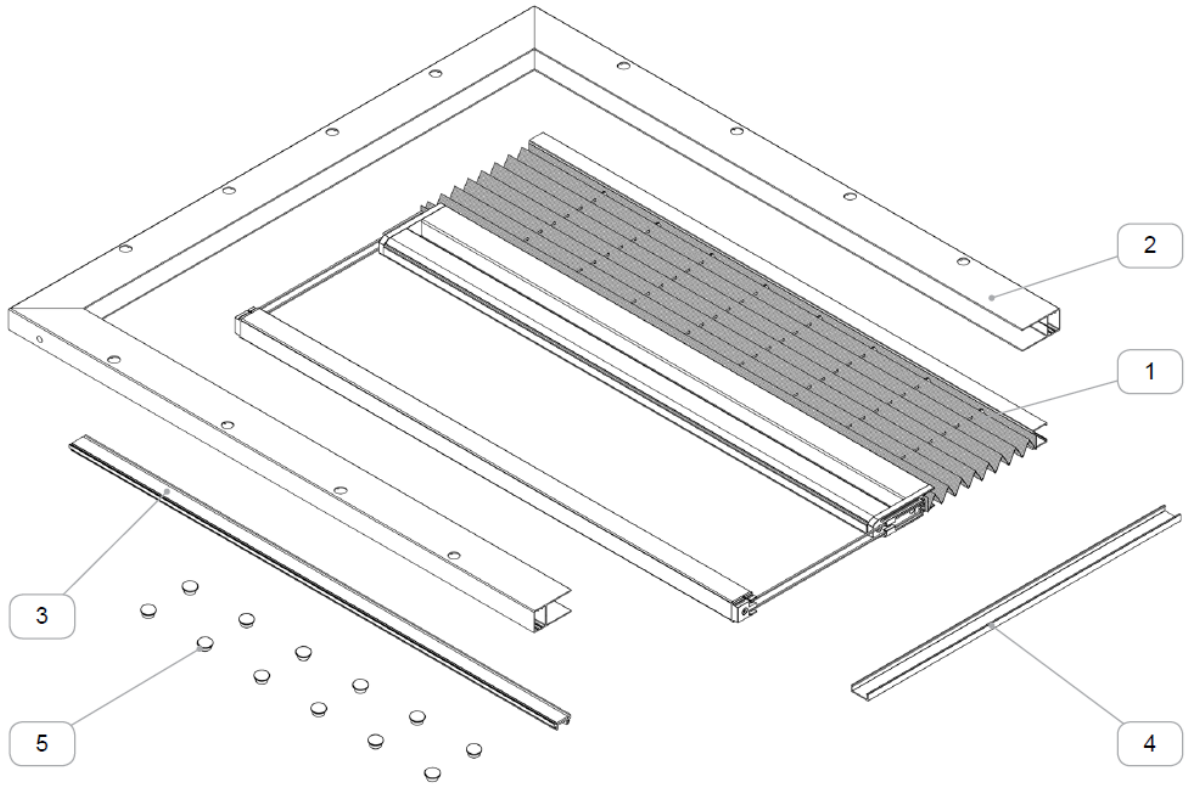
2. Close first and second panel.

3. Pull with pull handle.

4. Push rest of panels open.



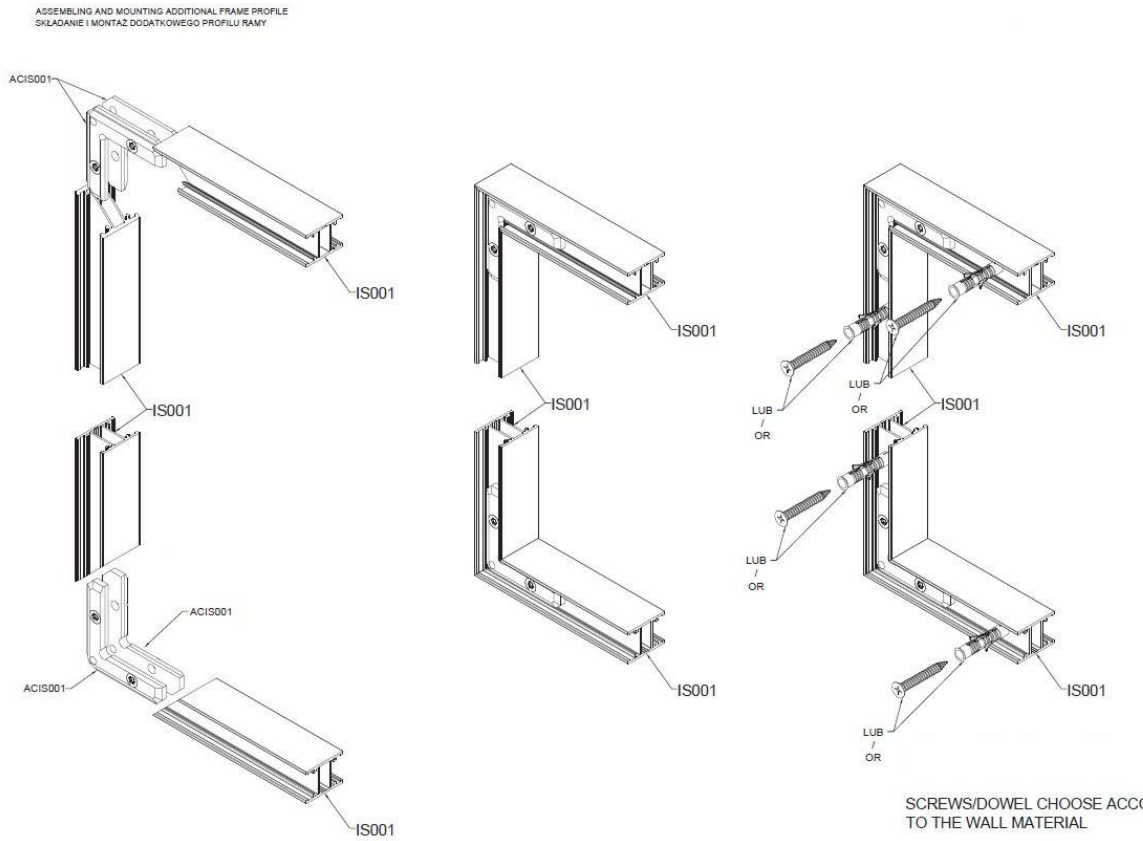
STEP 19 List Of Insect Screen Elements



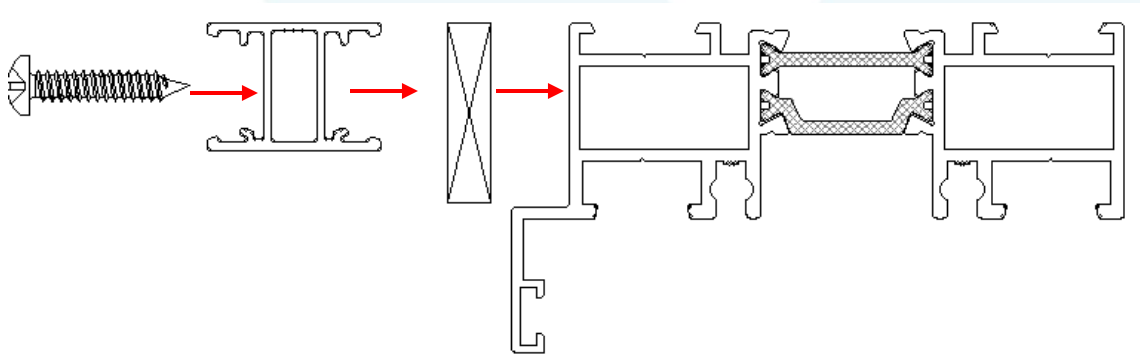
1. Insect scrren mesh
2. Frame
3. Cover profile with magnetic tape
4. Threshold profile
5. Caps

STEP 19 Assembly of Insect Screen

1. We fold the additional insect screen frame.

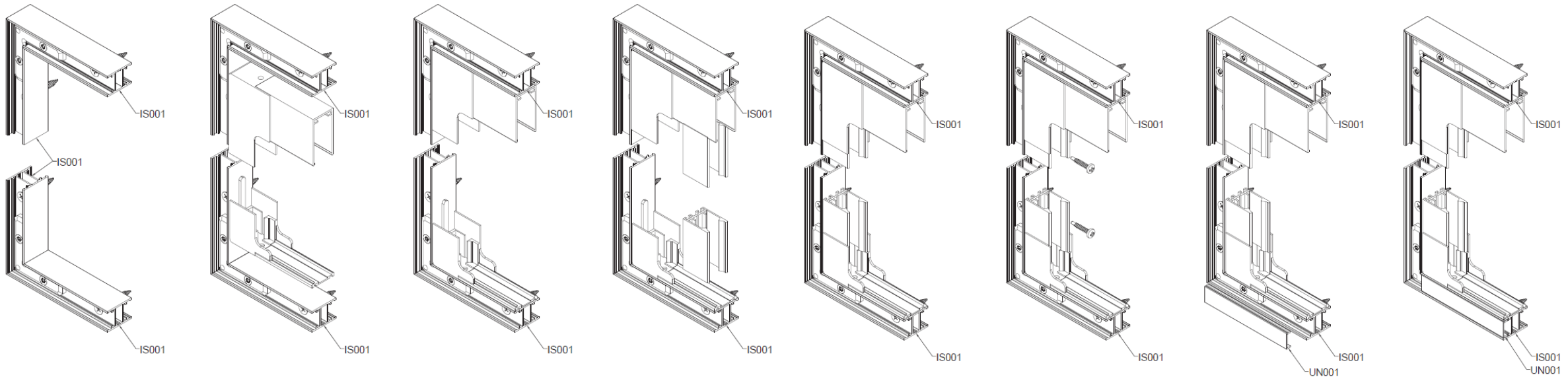


2. Screw insect screen frame to the BiFold frame. Use solid block between frames.



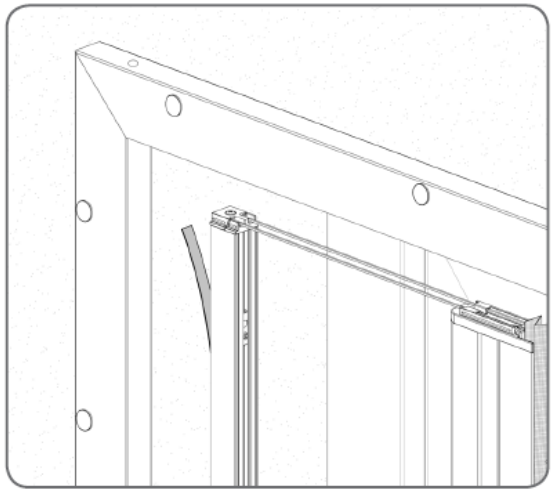
STEP 19 Assembly of Insect Screen

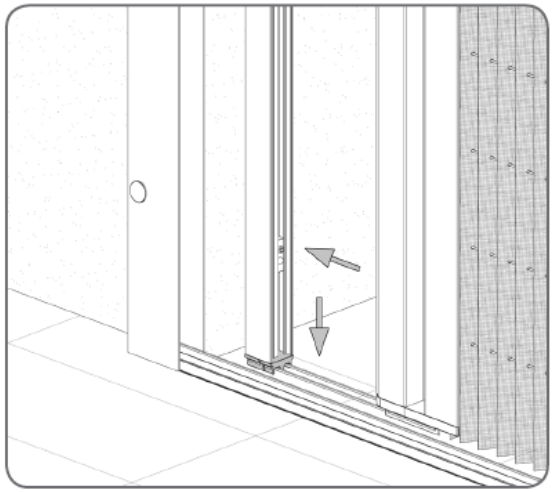
3. Installation of the insect screen guides.



STEP 19 Assembly of Insect Screen

4. Installation of the insect screen mesh into the frame.





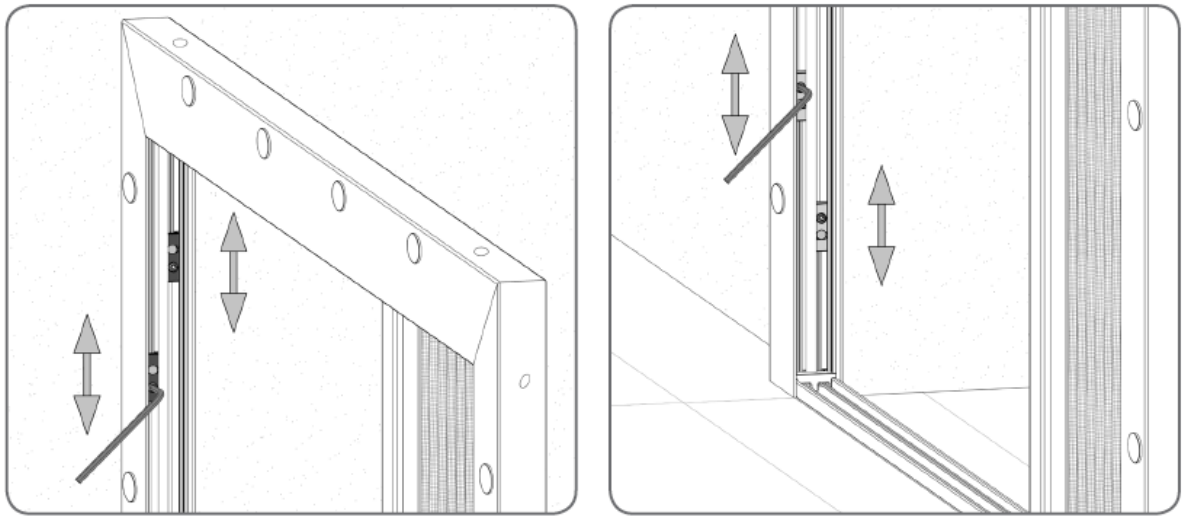
Note: Before sticking, clean and degrease the surface to which the tape will be glued.

1. Glue the tension profile to the inside of the frame profile on the side where the net is to be installed. For this, it must first be downloaded securing the double-sided tape.
2. First click the bottom plug of the tension profile onto the bottom profile, and the whole slide into the guide and stick.
3. On the opposite side, install the MPH assembly by first clicking the plug of the sliding profile on the bottom profile, and then click the entire set onto the latches mounted in the frame.

Note: When performing the above steps, be especially careful that the strings do not cross each other.

STEP 19 Assembly of Insect Screen

In the tension profile, the string tension should be properly adjusted by moving the plastic ends up / down. After completingthe adjustment, tighten the set screws with the allen key.

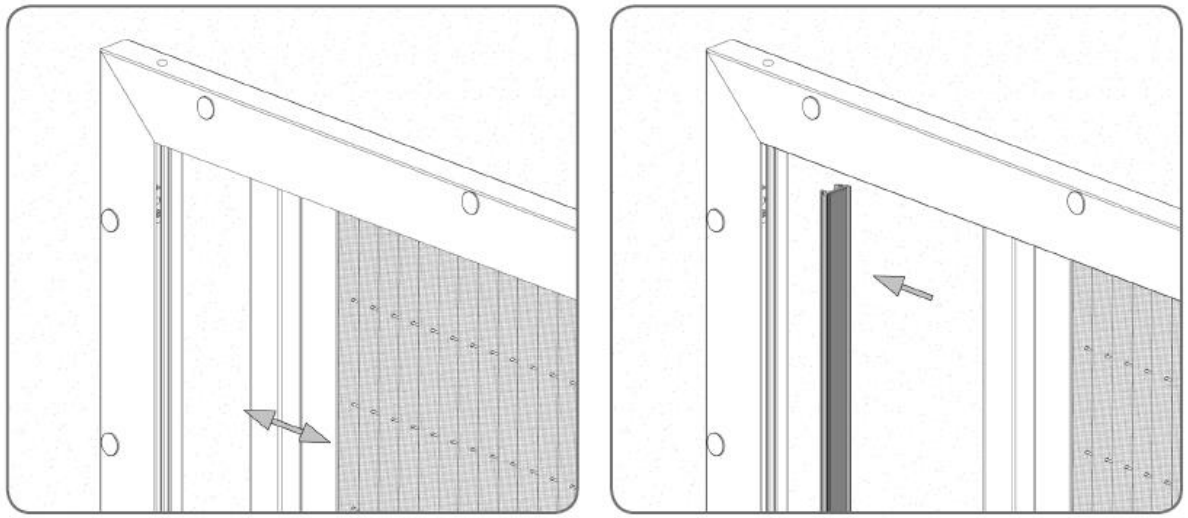


If necessary, trim the strings and tie them again.

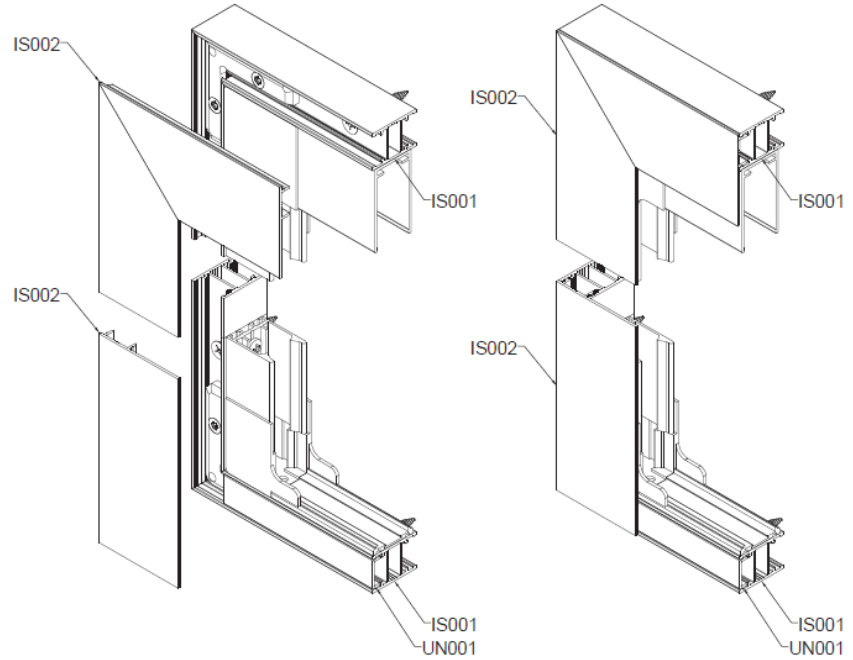
NOTE: The strings must not be tightened too much, as this may damage the insect screen. The strings should be tightened gently and with sensitivity.

STEP 19 Assembly of Insect Screen

After initial string tension is established, check the tension by fully opening and closing the insect screen several times. If necessary, correct the headboard. Then click on the masking profile with the magnetic tape stuck on.



Then click the clips that mask the frame.



Completion Checklist

1. Ensure the multipoint is operating smoothly (*if applicable*).
2. Ensure that handle is operating smoothly.
3. Ensure equal reveal to right and left of the system.
4. Ensure horizontal and vertical alignment.
5. Apply sealant to the following:

    A) Screw holes

    B) Each place where necessary

Recommended Product Care After Installation

1.install the plastic protection tape on the sill and keep after installation!

2.Create a sturdy bridge to protect sill during construction phase.

3.Place bridge while window, door, bifold door lift&slide and slide door system are in open position.

4.Protect the side jambs of the frame from damage.

5.Protect the window, door, bifold door lift&slide and sliding door system from the following:

- *Stucco*: causes etching on aluminum, stains wood, clogs the track and damages rollers.
- *Drywall*: stains wood; clogs the system tracks; gums up rollers.
- *Duct tape*: some adhesives chemically react with many finishes, therefore use tape such as painter's tape, but do not leave on any surface for more than 7 days.

6.Instructions for the Owner and General Contractor:

- Do not have small children operate or play within the confines of the window, door, bifold door lift&slide and sliding door system.
- Do not force the window, door, bifold door, lift&slide or sliding door system. Contact Yawal USA if operation becomes difficult.
- Apply protection bumpers where exterior/interior handles have contact with something that can damage the handle.

Recommended Product Care For End User

Cleaning Painted Windows, Door Frames and Sashes:

- Apply a low to medium pressure water rinse from top to bottom, rubbing lightly with a soft automobile brush or sponge.
- Use a mild detergent; a mild detergent that is safe for bare hands should be safe for painted windows; always spot test any detergent before using.
- Detergents should not be allowed to collect or puddle on the horizontal surfaces or in the joints. These surfaces should be flushed with water and dried.
- Rinse thoroughly with clear water. if the detergent is permitted to dry, it may be necessary to lightly sponge the surface while rinsing.
- Allow the surfaces to air dry or wipe dry with a chamois cloth.

Precautions For Cleaning Painted Finish

- Use cleaners sparingly; always follow cleanser manufacturer's instructions.
- Avoid dripping or splashing detergents on surrounding surfaces and vegetation; thoroughly rinse immediately.
- Make sure sponges, brushes, rags and chamois are free of dirt and grit.

Do Not Use Any Of The Following, Which Can Be Damaging:

- Glass cleaners containing ammonia
- Use of stiff bristle brushes, steel wool or scrubbing pads
- Use of knives, putty knives or scrapers
- Use of high-pressure nozzle
- Avoid ketones, lacquer thinners or paint removers.

Anodized finishes should only be cleaned with soap and water

Recommended Product Care For End User

Door Thresholds:

Wipe and wash the surface of the threshold using a mild detergent; this area should be kept free from dirt, insects, leaves and debris.

Hardware Care:

To maintain the proper hardware operation, accumulations of salt and grit should be cleaned and removed. Use compressed air to remove sand and salt.

Gear Operators:

Lubricate gear arms and pivot points using waterproof lubricant. The roto gear mechanism should be lubricated using high performance marine grade grease. Lubricate gear arms and pivot points using waterproof lubricant.

Casement And Awning Hinges:

Arms and tracks use compressed air to remove sand and salt from tracks. All operable parts should be lubricated and wiped down with waterproof lubricant. Apply a small amount of lubricant and work the vent open and closed to completely lubricate the tracks. Wipe off any excess.

Door Hardware

Care door hinges flush bolts and pivots

After cleaning, all operable parts should be lubricated and wiped down using waterproof lubricant. Apply a small amount to the hinges and move the door panel back and forth several times to work in the lubricant. Wipe off any excess.

Locksets

All operable parts should be lubricated and wiped down using waterproof lubricant. Operate the handle a few times to allow the lubricant to penetrate the latch assembly. Place a small amount of lubricant in the lock cylinder. Place the key in the cylinder and work the lubricant into the locking mechanism.

Recommended Product Care For End User

Multipoint Mechanism

Use compressed air to remove sand and salt from the multipoint lock mechanism. all operable parts should be lubricated and wiped down using waterproof lubricant.

Drainage And Weep Systems

It is normal for water to accumulate and drain out of weep holes found at door sill and thresholds. To allow for adequate drainage, this area should be kept free from dirt, insects, leaves and debris.

- Vacuum the sill and remove any debris
- Check sills for sealant adhesion and make sure that any setting screws are sealed
- Use A small soft brush to clean any debris from the door threshold weep holes

Frequency

Carry out care procedures with the following minimum recommendations:

- General environments – every 6 months.
- Coastal and industrial environments – every 3 months.
- Regular maintenance is required for all hardware - even stainless steel - to keep Manufacturer’s Warranty in place.

LET'S COLLABORATE!

CONTACT US

Yawal USA
11 W Hudson Ave.
Englewood, NJ 07631, USA
T. +1 (201) 753 2195
office@yawalusa.com

www.yawalusa.com